



## Global food security under climate change

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### Abstract:

This article reviews the potential impacts of climate change on food security. It is found that of the four main elements of food security, i.e., availability, stability, utilization, and access, only the first is routinely addressed in simulation studies. To this end, published results indicate that the impacts of climate change are significant, however, with a wide projected range (between 5 million and 170 million additional people at risk of hunger by 2080) strongly depending on assumed socio-economic development. The likely impacts of climate change on the other important dimensions of food security are discussed qualitatively, indicating the potential for further negative impacts beyond those currently assessed with models. Finally, strengths and weaknesses of current assessment studies are discussed, suggesting improvements and proposing avenues for new analyses.

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### Resource Description

#### Climate Scenario :

specification of climate scenario (set of assumptions about future states related to climate)

Special Report on Emissions Scenarios (SRES)

**Special Report on Emissions Scenarios (SRES) Scenario:** SRES A1, SRES A2, SRES B1, SRES B2

#### Communication:

resource focus on research or methods on how to communicate or frame issues on climate change; surveys of attitudes, knowledge, beliefs about climate change

A focus of content

#### Communication Audience:

audience to whom the resource is directed

Policymaker

#### Exposure :

weather or climate related pathway by which climate change affects health

# Climate Change and Human Health Literature Portal

Food/Water Security

**Food/Water Security:** Agricultural Productivity, Food Access/Distribution

**Geographic Feature:** 

resource focuses on specific type of geography

None or Unspecified

**Geographic Location:** 

resource focuses on specific location

Global or Unspecified

**Health Impact:** 

specification of health effect or disease related to climate change exposure

Malnutrition/Undernutrition

**Mitigation/Adaptation:** 

mitigation or adaptation strategy is a focus of resource

Adaptation

**Model/Methodology:** 

type of model used or methodology development is a focus of resource

Outcome Change Prediction

**Population of Concern:** A focus of content

**Population of Concern:** 

populations at particular risk or vulnerability to climate change impacts

Low Socioeconomic Status

**Resource Type:** 

format or standard characteristic of resource

Review

**Socioeconomic Scenario:** SES scenarios

**Timescale:** 

time period studied

Long-Term (>50 years)

**Vulnerability/Impact Assessment:** 

resource focus on process of identifying, quantifying, and prioritizing vulnerabilities in a system

A focus of content

